SOLID-STATE LIGHTING:

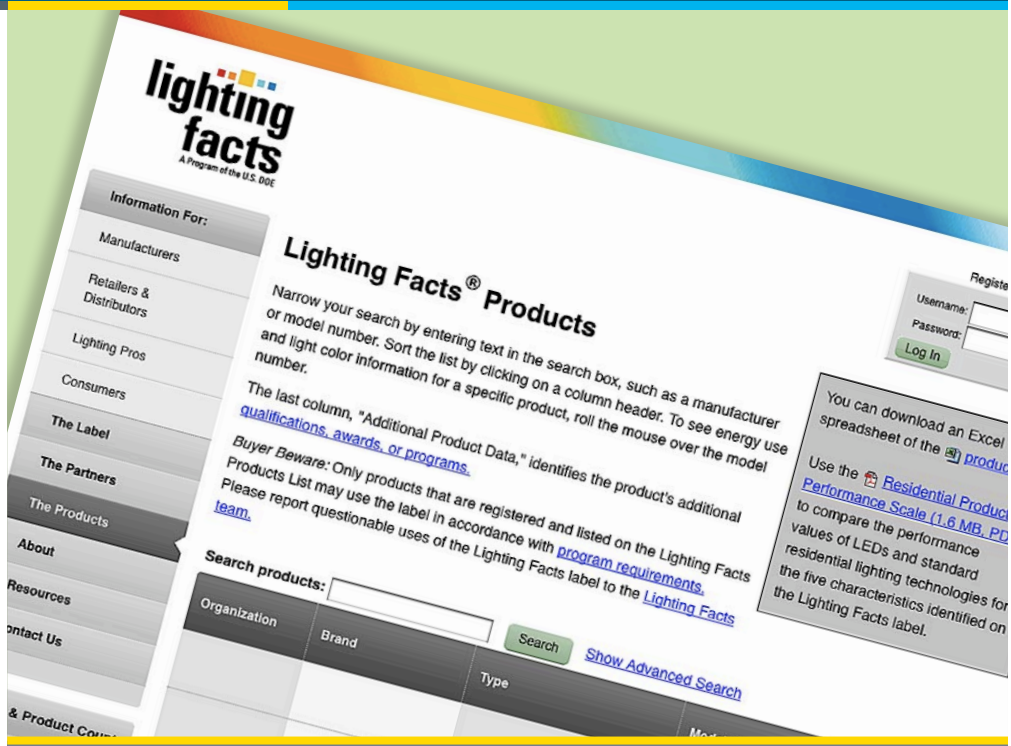
Lighting Facts® Label Supports Accuracy in SSL Product Information

By consulting DOE's Lighting Facts label and its companion product list, consumers gain confidence that the SSL products they buy will perform to their expectations.

For the solid-state lighting (SSL) market to grow, buyers must have accurate information that allows them to choose the right lighting products for their applications. A voluntary product labeling initiative—Lighting Facts—meets this critical need. Launched in 2008 by the U.S. Department of Energy (DOE), the Lighting Facts label provides a standardized summary of verifiable product data, as measured by the industry standard for testing photometric performance, IES LM-79-2008.

The Lighting Facts label is an industry tool to help buyers choose wisely, providing essential information to evaluate product performance against manufacturer claims. Luminaire manufacturers who use the label commit to testing products and reporting performance results according to industry standards in five areas: lumens, efficacy, watts, correlated color temperature, and color rendering index. Additional metrics related to reliability, product consistency, construction, and other parameters may be considered in future editions of the label.

DOE's Lighting Facts label provides a simple, standardized summary of verifiable performance data on SSL products.



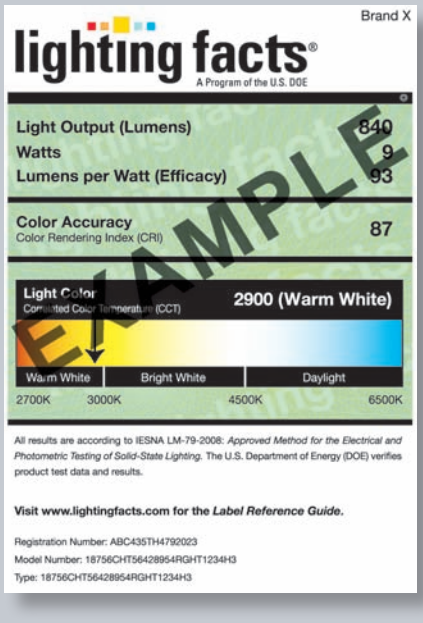
The Lighting Facts product list is a web-based, searchable tool that summarizes verified data, equipping buyers to make informed decisions about the best products for their applications.

An array of Lighting Facts partners—lighting buyers, contractors, designers, distributors, retailers, utilities, and energy efficiency programs—have joined leading manufacturers in promoting Lighting Facts. These partners are dedicated to introducing transparency to the lighting supply chain, using the DOE Lighting Facts label to guard against exaggerated and unverified claims in the marketplace and helping to ensure a satisfactory experience for lighting buyers.

Quality Is Key

Today's lighting marketplace features a growing number of LED products, from desk lamps to outdoor lighting. While many of these products deliver on their performance claims, independent testing conducted through the DOE CALiPER program reveals that some do not. Concerns include low light output, lifetimes that are shorter than reported, and poor or inconsistent color quality. Such shortcomings could discourage consumers from accepting SSL technology, much as quality problems in the early days of compact fluorescent lighting (CFL) slowed market acceptance of these products.

The Lighting Facts label was jointly developed by DOE and the Next Generation Lighting Industry Alliance (NGLIA) as a foundation for avoiding these marketplace disappointments and facilitating successful commercialization



The DOE Lighting Facts label allows retailers and utilities to compare products to manufacturer claims and to similar products.

Lumens measure light output. The higher the number, the more light emitted.

Lumens per watt (lm/W) measure efficiency. The higher the number, the more efficient the product.

Watts measure the energy required to light the product. The lower the wattage, the less energy used.

Correlated Color Temperature (CCT) measures light color. "Cool" colors have higher Kelvin temperatures (3600–5500 K); "warm" colors have lower color temperatures (2700–3000 K). Cool white light is usually better for visual tasks. Warm white light is usually better for living spaces because it casts a warmer light on skin and clothing. Color temperatures of 2700 to 3600 K are recommended for most general indoor and task lighting.

Color Rendering Index (CRI) measures the effect of a lamp's light spectrum on the color appearance of objects. The higher the number, the truer the appearance of the light on objects. Incandescent lighting is 100 on the CRI.

of SSL. The initiative includes voluntary product labeling and a web-accessible, searchable product list that allows prospective buyers to screen product performance information for specific applications. See www.lightingfacts.com for the product list and an array of tools and guidelines to support informed SSL purchasing decisions. DOE and NGLIA continue to evolve the Lighting Facts initiative and tools, including development of a 2010 supplemental guide, *LED Luminaire Lifetime: Recommendations for Testing and Reporting*, which details specific guidance for accurate reporting of lifetime.

How to Participate

Companies or organizations can take the Lighting Facts pledge at www.lightingfacts.com. Manufacturers must complete the online pledge form, create an account, and then submit products for verification. Once products pass the DOE verification process, manufacturers are able to download labels from the Lighting Facts website. To verify the data on a Lighting Facts label, manufacturers are required to submit a copy of the IES LM-79 test report for each product. In addition, DOE monitors the accuracy of reported product performance through random testing.

Retailers, distributors, and other buyers who take the pledge send an equally powerful message to manufacturers—that they do their homework before selecting LED lighting products. Armed with Lighting Facts information, retailers and other industry stakeholders can keep poor-performing products from ever reaching their shelves. Using the Lighting Facts label, tools, and guidelines better equips buyers to make informed choices when evaluating products. Learn more at www.lightingfacts.com.

New FTC Consumer Labels for Light Bulb Packaging

Effective July 2011, the Federal Trade Commission (FTC) will enforce a rule requiring mandatory new labels on light bulb packages. These labels—also called Lighting Facts—are consistent with the voluntary DOE label but apply only to medium screw-base light bulbs (encompassing CFLs and incandescent bulbs as well as SSL lamps). For more on the similarities and differences between the labels, see www.lightingfacts.com.

For More Information

For more information on the Lighting Facts program, see www.lightingfacts.com.

EERE Information Center

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